

1. A system for establishing telephone communication between a telephone call placed to a primary telephone number and at least one of a plurality of telephone devices, the primary telephone number being associated with a primary telephone device, the system comprising:

5           a database for storing one or more other telephone numbers associated with the primary telephone number, each of the other telephone numbers corresponding to at least one of the plurality of telephone devices;

          means for detecting placement of the telephone call to the primary telephone number;

10           means for retrieving at least one of the other telephone numbers from said database;

          means for placing a call to the at least one of the other telephone numbers, the at least one of the other telephone numbers being associated with a first one of the plurality of telephone devices; and

15           means for connecting the telephone call to the at least one of the plurality of telephone devices, if the first one of the plurality of telephone devices goes off hook before the primary telephone device goes off hook,

          wherein the primary telephone device is part of a first telephone network, the first of the plurality of telephone devices is part of a second telephone network  
20           and the second telephone network is a wireless carrier network located remotely from the first telephone network.

2. The system of claim 1, wherein said means for detecting placement of the telephone call includes means for detecting ringing of said primary telephone.

3. The system of claim 1, wherein the first one of the plurality of telephone devices comprises a cellular telephone.

5           4. The system of claim 3, wherein the system further comprises means for transmitting a message to the cellular telephone inquiring whether said telephone call is to be accepted, said message being played to the cellular telephone upon detection that the cellular telephone has been taken off hook.

10           5. The system of claim 1, wherein the call to the at least one of the other telephone numbers and the call to the primary telephone number occur substantially simultaneously with each other.

15           6. The system of claim 1, wherein said means for connecting the telephone call to the first one of the plurality telephone devices comprises bridging a first port of the first telephone network to a second port of the second telephone network.

20           7. The system of claim 1, wherein the first telephone network is a private branch exchange.

          8. The system of claim 1, wherein the second telephone network is coupled to the system via a public switched telephone network.

9. An apparatus for connecting a first telephone call placed to a primary telephone device to a secondary telephone device, the primary telephone device being associated with a first telephone network and a primary telephone number, said apparatus comprising:

5           a computer readable storage medium, said storage medium storing a secondary telephone number associated with the primary telephone number and corresponding to the secondary telephone device, the secondary device being accessible through a second telephone network; and

                  a telephony engine coupled to said computer readable storage medium,  
10   said engine retrieving the secondary telephone number from said database upon detecting the first telephone call, said engine placing a second call to the secondary telephone number and bridging the first telephone call to the secondary telephone device, if the secondary telephone answers the call before the primary telephone device answers the call,

15           wherein the second telephone network is a commercial wireless carrier network.

10. The apparatus of claim 9, wherein said engine detects the first telephone call by detecting a ringing of the primary telephone at the first network.

20           11. The apparatus of claim 9, wherein the secondary telephone device comprises a cellular telephone and said apparatus provides a message to the cellular telephone inquiring whether the first telephone call is to be accepted.

12. The apparatus of claim 9, wherein the first and second telephone calls occur substantially simultaneously with each other.

13. The apparatus of claim 9, wherein said engine bridges the first  
5 telephone call by connecting a first port of the first telephone network to a second port of the second telephone network.

14. An apparatus for establishing a telephone connection between a wireless telephone and a landline telephone such that the wireless telephone operates  
10 substantially identically to the landline telephone, said apparatus comprising:

a database for storing information associating the landline telephone with the wireless telephone; and

a telephony engine coupled to said database, said engine receiving a telephone call, determining if the telephone call was received from the wireless  
15 telephone, retrieving telephone line connection information from said database corresponding to the landline telephone, and connecting the telephone call to a telephone line coupled to the landline telephone on the basis of said telephone line connection information, the telephone call being connected to the telephone line such that the wireless telephone receives a dial tone.

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15. The apparatus of claim 14, wherein the telephony engine plays a message to the wireless telephone if the wireless telephone is not authorized to place the telephone call.

16. The apparatus of claim 14, wherein said database includes a telephone number of the wireless telephone and said telephony engine uses automatic number identification (ANI) information from the telephone call to determine if the telephone call was received from the wireless telephone.

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17. The apparatus of claim 14, wherein said telephony engine connects the telephone call to the telephone line coupled to the landline telephone by a bridging operation.

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18. An apparatus for allowing access to an enterprise communication network from a wireless device associated with a wireless carrier that is remote to the enterprise communication network, said apparatus comprising:

a database for storing information associating the wireless device to a telephone extension of the enterprise network; and

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a telephony engine coupled to said database and the enterprise network, said engine being adapted to determine if a telephone call was received from the wireless device and connects the device to the telephone extension so that the wireless device receives a dial tone from the enterprise network and operates substantially identically as a telephone associated with and connected to the enterprise network via the telephone extension.

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19. The apparatus of claim 18, wherein the wireless device is a wireless telephone and the apparatus receives the telephone call from a public switched telephone network connection.

20. The apparatus of claim 18, wherein said database further includes a telephone number of the wireless device and said telephony engine uses automatic number identification (ANI) information from the telephone call to determine if the  
5 telephone call was received from the wireless device.

21. The apparatus of claim 18, wherein said telephony engine connects the wireless device to the telephone extension by a bridging operation.

10 22. An apparatus for providing telephone communication between a first telephone having a first telephone number and a first telephone extension of a first telephone network and a second telephone associated with a second telephone network, wherein the first telephone is associated with a first telephone number, the apparatus comprising:

15 a connect database, said database storing connection information associating the first telephone number and extension to the second telephone and a second telephone number associated with the second telephone; and

a processor, said processor adapted to connect a first telephone call placed to the first telephone to the second telephone based on the connection information,  
20 and said processor further adapted to provide the second telephone access to features of the first telephone network so that the second telephone operates substantially identically as the first telephone associated with first telephone network via the first telephone extension, wherein the second telephone network is a wireless carrier network located remotely from the first telephone network.

23. The apparatus of claim 22 wherein the first telephone network is an enterprise private branch exchange.

5           24. The apparatus of claim 23, wherein the first telephone network is an enterprise private branch exchange coupled to a property management system and said processor further comprises a property management system interface for exchanging information between the property management system and said database.

10           25. The apparatus of claim 24, wherein said connection information is retrieved from said property management system prior to being stored in said database.

15           26. The apparatus of claim 24, wherein said connection information is retrieved from a local area network prior to being stored in said database.

20           27. The apparatus of claim 23, wherein the first telephone network is an enterprise private branch exchange coupled to an accounting system and said processor further comprises a billing interface for exchanging information between the accounting system and said database.

28. A method of establishing telephone communication between a telephone call placed to a primary telephone number and at least one of a plurality of

telephone devices, the primary telephone number being associated with a primary telephone device, the method comprising the steps of:

storing one or more other telephone numbers associated with the primary telephone number, each of the other telephone numbers corresponding to one of

5 the plurality of telephone devices;

detecting placement of the telephone call to the primary telephone number;

retrieving a first one of the other telephone numbers;

10 placing a call to the first one of the other telephone numbers, the first one of the other telephone numbers being associated with at least one of the plurality of telephone devices; and

connecting the telephone call to the at least one of the plurality of telephone devices if it goes off hook before the primary telephone device goes off hook, wherein the primary telephone is part of a first telephone network, the at least  
15 one of the plurality of telephone devices is part of a second telephone network remote to the first telephone network and the second telephone network is a commercial wireless carrier network.

29. The method of claim 28, wherein said detecting step comprises  
20 detecting ringing of the primary telephone.

30. The method of claim 28, wherein the at least one of the plurality of telephone devices comprises a cellular telephone and the method further comprises the step of transmitting a message to the cellular telephone inquiring whether the

telephone call is to be accepted, the message being played to the cellular telephone upon detection that the cellular telephone has been taken off hook.

31. The method of claim 28, wherein the call to the first one of the other  
5 telephone numbers and the call to the primary telephone occur substantially simultaneously with each other.

32. The method of claim 28, wherein said connecting step comprises  
bridging a first port of the first telephone network to a second port of the second  
10 telephone network.

33. A method of allowing access to an enterprise communication  
network from a wireless device remote to the network, the method comprising the  
steps of:  
15 storing information associating the wireless device to a telephone  
extension of the enterprise network;  
determining if a telephone call was received from the wireless device; and  
connecting the wireless device to the telephone extension so that the  
wireless device receives a dial tone from the enterprise network and operates  
20 substantially identically as a telephone associated with and connected to the  
enterprise network via the telephone extension.

34. The method of claim 33, wherein the wireless device is a wireless  
telephone and said determining step comprises:

receiving the telephone call from a public switched telephone network

connection; and

determining if the received call originated from the wireless device.

5           35. The method of claim 33, wherein said storing step further includes storing a telephone number of the wireless device and said determining step comprises:

obtaining automatic number identification (ANI) information from the telephone call;

10           comparing the ANI to the stored telephone number;

and determining if the ANI matches the telephone number of the wireless device.

15           36. The method of claim 33, wherein said connecting step connects the wireless device to the telephone extension by a bridging operation.

37. An article of manufacture comprising a machine-readable storage medium having stored therein indicia of a plurality of machine-executable control program steps, the control program comprising the steps of:

20           storing one or more secondary telephone numbers associated with a primary telephone number, the primary telephone number corresponding to a primary telephone device and each of the secondary telephone numbers corresponding to one of a plurality of telephone devices;

detecting placement of a telephone call to the primary telephone number;

retrieving a first one of the secondary telephone numbers;

placing a call to the first one of the secondary telephone numbers, the first one of the secondary telephone numbers being associated with at least one of the plurality of telephone devices; and

5 connecting the telephone call to the at least one of the plurality of telephone devices if it goes off hook before the primary telephone device goes off hook, wherein the primary telephone is part of a first telephone network, the at least one of the plurality of telephone devices is part of a second telephone network remote to the first telephone network, and wherein the second telephone network is  
10 a wireless carrier network.

38. The article of manufacture of claim 37, wherein said detecting step of the control program comprises detecting ringing of the primary telephone.

15 39. The article of manufacture of claim 37, wherein the at least one of the plurality of telephone devices comprises a cellular telephone and the control program further comprises the step of transmitting a message to the cellular telephone inquiring whether the telephone call is to be accepted, the message being played to the cellular telephone upon detection that the cellular telephone has been  
20 taken off hook.

40. The article of manufacture of claim 37, wherein the call to the first one of the other telephone numbers and the call to the primary telephone occur substantially simultaneously with each other.

41. The article of manufacture of claim 37, wherein said connecting step of the control program comprises bridging a first port of the first telephone network to a second port of the second telephone network.

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42. An article of manufacture comprising a machine-readable storage medium having stored therein indicia of a plurality of machine-executable control program steps, the control program comprising the steps of:

10 storing information associating a wireless communications device to a telephone extension of an enterprise network;  
determining if a telephone call was received from the wireless device; and  
connecting the wireless device to the telephone extension so that the wireless device receives a dial tone from the enterprise network and operates substantially identically as a telephone associated with and connected to the  
15 enterprise network via the telephone extension.

43. The article of manufacture of claim 42, wherein the wireless device is a cellular telephone, and the determining step of the control program comprises:

20 receiving the telephone call from a commercial wireless carrier via a public switched telephone network connection; and  
determining if the received call originated from the cellular telephone.

44. The article of manufacture of claim 42, wherein the storing step of the control program further includes storing a telephone number of the wireless device, and the determining step comprises:

5 obtaining automatic number identification (ANI) information from the telephone call;  
comparing the ANI to the stored telephone number; and  
determining if the ANI matches the telephone number of the wireless device.

10 45. The article of manufacture of claim 42, wherein the connecting step of the control program connects the device to the telephone extension by a bridging operation.

15 46. A communication system comprising:  
a processing unit; and  
a memory, wherein a computer program is stored in said memory for execution by said processing unit to detect an attempt to initiate communications with a first communication device, to attempt to initiate communications with a second communication device, and to establish communications with either the first  
20 or second communication device, wherein the first communication device is part of a first communication network, the second communication device is part of a second communication network, and wherein the second communication network is a wireless carrier network remotely located from the first communication network.

47. The system of claim 46, wherein the first communication device is a telephone and the first communication network is a private branch exchange.

48. The system of claim 47, wherein the second communication device is a cellular telephone and the second communication network is a commercial cellular telephone network.

49. The system of claim 48, wherein the second communication device is a pager.

50. The system of claim 48, wherein the second communication device is a personal digital assistant.

51. The system of claim 48, wherein the second communication device is a digital PCS cellular telephone.

52. The system of claim 46, wherein the first communication device is a telephone and said processing unit detects an attempt to initiate communications with the telephone by detecting a telephone call directed to the telephone.

53. The system of claim 46, wherein said memory further comprises a database containing information for initiating communications with the second communication device.

54. The system of claim 53, wherein the second communication device is associated with a telephone number and the telephone number is stored within the database as part of the information for initiating communications with the second communication device, and wherein said processing unit attempts to initiate  
5 communications with the second communication device by retrieving the telephone number from the database and placing a call to the telephone number.

55. The system of claim 46, wherein the first communication network is a private branch exchange and said processing unit is co-located with and connected  
10 to the private branch exchange.

56. The system of claim 46, wherein the first communication device is a desktop telephone set and the second communication device is a wireless telephone, and wherein the attempt to initiate communications with the desktop telephone set  
15 is a telephone call.

57. The system of claim 56, wherein said processing unit attempts to initiate communications with the wireless telephone simultaneously with the telephone call to the desktop telephone set.

58. The system of claim 56, wherein said processing unit establishes communications with the desktop telephone set by bridging the telephone call to the desktop telephone set, if the desktop telephone set goes off hook before the wireless telephone set.

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